

REMARKS

The Office Action dated February 18, 2005, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

Claims 1-6 have been amended. Claims 1-6 are pending in the present application and are respectfully submitted for consideration.

Telephone Conference

As a preliminary matter, Applicants thank Examiner Pham for conducting a telephone conference with the undersigned, and clarifying the rejections noted in the Office Action.

Allowable Subject Matter

Applicants also appreciate the indication of allowable subject matter in claim 6 of the present application.

Claim Objections

Claim 1 was objected as containing some informalities therein. Claim 1 has been amended to place claim 1 in further compliance with US patent practice for examination.

Applicants respectfully request withdrawal of the objection.

Claims 1 and 2 Rejected Under 37 U.S.C. § 102

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by Hwang et al. (U.S. Patent No. 5,777,491; hereinafter "Hwang"). In addition, claims 1 and 2 were rejected under 35 U.S.C. § 102(b) as being anticipated Hsieh et al. (U.S. Patent No. 4,878,101; hereinafter "Hsieh") and Kuo (U.S. Patent No. 4,766,473). Applicants

respectfully submit that each of claims 1 and 2 recites subject matter that is neither disclosed nor suggested by the cited prior art.

Claim 1 recites a semiconductor device comprising a data supply circuit configured to supply two signals that are complementary with each other to represent a single value in a first operation mode and capable of assuming either different signal levels or an identical signal level in a second operation mode. In addition, the semiconductor device includes a first data line, a second data line, and a drive circuit configured to set, in the first operation mode, the first data line to a signal level responsive to said single value represented by the two complementary signals, and configured to set, in the second operation mode, the first data line to a signal level responsive to one of the two signals and the second data line to a signal level responsive to another one of the two signals after precharging the first and second data lines.

It is respectfully submitted that the prior art fails to disclose or suggest at least the above-mentioned features of the Applicants' invention.

Applicants submit that neither, Hwang, Hsieh nor Kuo disclose or suggest each and every element recited in claim 1 of the present application. In particular, it is submitted that the electronic circuits of Hwang, the EEPROM of Hsieh and of Kuo are neither comparable nor analogous to the semiconductor device of the present invention. In particular, the cited prior art fails to disclose or suggest a semiconductor device operating in a first operation mode and a second operation mode as recited in the claimed invention. For instance, in the first operation mode of the present invention, the first data line is driven to assume a signal value represented by the two complementary

signals. In the second operation mode of the present invention, the first data line is driven to assume a signal level responsive to the other one of the two signals. The first and second data lines are precharged beforehand in the second operation mode.

Hence, the first data line in the first operation mode of the present invention can be used to convey the signal value represented by the two signals that are complementary to each other while the first data line and the second data line are used as a pair in the second operation mode to convey the respective signal levels of the two signals. Accordingly, the present invention provides for a failure to be detected by checking the pair of the first data line and the second data line in the second operation mode where such a failure is represented by the two signals assuming the same signal level (i.e., not complementary with each other).

In contrast, not one of the cited references teaches using a first data line in a first operation mode to carry a signal value represented by two signals that are complementary to each other while using the first data line and a second data line in a second operation mode to carry the respective signal levels of the two signals that may not be complementary with each other.

Therefore, Applicants submit that each of Hwang, Hsieh nor Kuo fails to disclose each and every element recited in claim 1 of the present application.

Moreover, to qualify as prior art under 35 U.S.C. §102, a single prior art reference must teach, i.e., identically describe, each feature of a rejected claim. As explained above, each of Hwang, Hsieh nor Kuo fails to disclose or suggest each and every feature of claim 1. Accordingly, Applicants respectfully submit that claim 1 is not

anticipated by nor rendered obvious by the disclosure of Hwang, Hsieh nor Kuo. Therefore, Applicants respectfully submit that claim 1 is allowable.

As claim 2 depends from claim 1, Applicants submit that claim 2 incorporates the patentable aspects therein, and are therefore allowable for at least the reasons set forth above with respect to the independent claim, as well as for the additional subject matter recited therein.

Accordingly, Applicants respectfully request withdrawal of the rejection.

Claims 2-5 Rejected under 37 U.S.C. § 103

Claims 3-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsieh in view of Furutani et al. (U.S. Patent No. 5,305,261; hereinafter "Furutani"), and unpatentable over Kuo in view of Furutani. In addition, claims 2-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hwang in view of Furutani.

Applicants respectfully submit that each of claims 2-5 recites subject matter that is neither disclosed nor suggested by the cited prior art.

As claims 2-5 depend from claim 1, Applicants submit that each of these claims incorporates the patentable aspects therein, and are therefore allowable for at least the reasons set forth above with respect to the independent claim, as well as for the additional subject matter recited therein.

Conclusion

In view of the above, Applicants respectfully submit that each of claims 1-6 recites subject matter that is neither disclosed nor suggested in the cited prior art. Applicants also submit that the subject matter is more than sufficient to render the

claims non-obvious to a person of ordinary skill in the art, and therefore respectfully request that claims 1-6 be found allowable and that this application be passed to issue.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper has not been timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300.

Respectfully submitted,



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